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In the claims:

1. (Currently Amended) A process for producing PNPase, comprising at least the following steps:

(A) ~~a step of~~ constructing an expression vector comprising a prokaryote-derived PNPase gene integrated into a plasmid having a T7 promoter as an expression-regulating signal;

(B) ~~a step of~~ transforming *Escherichia coli* or its analogous bacteria having a T7 RNA polymerase gene using the expression vector;

(C) ~~a step of~~ allowing the resulting transformant to express the PNPase gene thereby accumulating PNPase in the bacteria; and

(D) ~~a step of~~ recovering the bacteria having PNPase accumulated therein, and extracting and purifying the PNPase.

2. (Currently Amended) The process according to claim 1, wherein the steps (C) and (D) are the following steps (C') and (D') respectively:

(C') ~~a step of~~ allowing the transformant to express the PNPase gene thereby accumulating PNPase in the bacteria, and further continuing to allow expression until the bacteria is disrupted to release the PNPase into a supernatant outside of the bacteria; and

(D') ~~a step of~~ recovering and purifying the PNPase released in the supernatant.

3. (Currently Amended) The process according to claim 1 ~~or~~ 2, wherein the plasmid has a tag gene capable of adding a tag to the PNPase to be produced.

4. (Original) The process according to claim 3, wherein the tag gene is a His tag gene, T7 tag gene, S tag gene, Nus tag gene, GST tag gene, DsbA tag gene, DsbC tag

gene, CBD_{cex} tag gene, CBD_{cenA} tag gene, CBD_{clos} tag gene, Trx tag gene, HSV tag gene, or 3×FLAG tag gene.

5. (Currently Amended) The process according to any one of claims 1 to 4, 11 or 12, wherein the prokaryote is *Escherichia coli*.

6. (Original) The process according to claim 5, wherein the *Escherichia coli* is *Escherichia coli* K12 or *Escherichia coli* O157.

7. (Currently Amended) The process according to ~~any one of claims 1 to 6~~claim 1, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

8. (Cancelled)

9. (Cancelled)

10. (Currently Amended) A process for producing polyinosinic acid or polycytidylic acid, each having an average chain length of about 2200 bases, characterized by using *Escherichia coli*-derived PNPase produced by the process of any one of claims 1 to 7, or 11 to 19.

11. (New) The process according to claim 2, wherein the plasmid has a tag gene capable of adding a tag to the PNPase to be produced.

12. (New) The process according to claim 11, wherein the tag gene is a His tag gene, T7 tag gene, S tag gene, Nus tag gene, GST tag gene, DsbA tag gene, DsbC tag gene, CBD_{cex} tag gene, CBD_{cenA} tag gene, CBD_{clos} tag gene, Trx tag gene, HSV tag gene, or 3×FLAG tag gene.

13. (New) The process according to claim 2, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

14. (New) The process according to claim 3, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

15. (New) The process according to claim 4, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

16. (New) The process according to claim 5, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

17. (New) The process according to claim 6, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

18. (New) The process according to claim 11, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli*

BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].

19. (New) The process according to claim 12, wherein the *Escherichia coli* having a T7 RNA polymerase gene is *Escherichia coli* BL21 [DE3], *Escherichia coli* BL21 [DE3] pLysS, *Escherichia coli* BLR [DE3], *Escherichia coli* Rosetta [DE3], or *Escherichia coli* B834 [DE3].